Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address*: HORIZON COLONY
PO BOX 50
SWEETGRASS, MT 59484

2. *Type of action*: Application for Beneficial Water Use Permit No. 41L-30024139

3. *Water source name*: Groundwater Well

4. *Location affected by action*: SWNWNW Sec. 20, T34N R05W, Glacier County

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:
This proposed project is to pump water from two groundwater wells at a point in the SWNWNW Sec. 20, T34N R05W, Glacier County, to be used for domestic, stock water, and shop use for a new colony, plus 6 acres of new garden irrigation. The Department of Environmental Quality (DEQ) requires two wells for a water system serving more than 15 families, one of which serves as a back-up source of water should one well fail. The back-up well will be used in the event the other well fails. The applicant is requesting 66 gpm up to 63.8 acre-feet per year. The water will be used year round for the domestic, stock water, and shop use and will be used from April 25 to October 5 for the lawn and garden irrigation. The place of use will be located in N2SW and S2NW Sec. 11, T34N R05W, Glacier County.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311, MCA, are met.

6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana State Historic Preservation Office
NRCS Soil Survey Website
Natural Resources and Conservation Service – Glacier County
Bureau of Mines and Geology Website
National Wetlands Inventory Website

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUALITY AND DISTRIBUTION

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: The source of supply are two groundwater wells. The applicant will need to get approval from DEQ for the colony's discharge elimination system for their animal confinement unit.

Groundwater *- Assess if the proposed project impacts ground water quality or supply.*
If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: The groundwater wells were drilled by a licensed water well driller in the State of Montana. The wells are both 180 feet deep with a clay and sand layer at about 80 feet. The proposed project is not expected to impact surface water flows.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: The production well will divert about 66 gpm of water using a 10 hp, 10-stage, Goulds Model 70 L submersible pump. From the well, water will be conveyed to two 30,000 gallon storage tanks through 4 inch PVC pipe. One tank will be used for domestic purposes and the other tank will be used for stock purposes. From the tanks, the water will be conveyed to the domestic and stock buildings using 3 inch PVC pipe, reducing to a 2 inch pipe between the domestic buildings. A meter or meters providing totalizing and instantaneous flow will be used for water use records. The water infrastructure was designed by a licensed engineer. No channel impacts, flow modifications, or barriers is expected from this proposed diversion system.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: According to a report from the Montana Natural Heritage Program, two species of special concern were found in the general area of this project. The species are the Ferruginous Hawk and the Long-billed Curlew. Both are considered sensitive species by the U.S. Bureau of Land Management. The habitat area of the species, according to the map received from the Montana Natural Heritage Program, does not include the proposed project area but they have been seen about a mile north of the place of use. The project site is not within or near a critical wildlife habitat area and will not deteriorate any wildlife habitat. Therefore, the project is not expected to cause a significant impact.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: A map from the National Wetland Inventory website does not identify any wetlands near the point of diversion or the place of use.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: There are no ponds associated with this proposed project.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: According to the NRCS Soil Survey website, the soils at the proposed place of use area are primarily Scobey-Kevin loams. These are fine-loamy soils with somewhat limited features. They have some shrink-swell characteristics. The applicant should be aware of the soils in the proposed project area so they can plan for proper management, both in their construction and the proposed garden irrigation. The applicant proposes to irrigate 6 acres of garden using about 2.5 acre-feet per acre, which is the DNRC standard for garden irrigation. With proper irrigation design and scheduling, it is anticipated that this project will have minimal impact on the soils in the area. Irrigation enhances vegetative cover during the growing season and provides more protection from wind and water erosion. To reduce the potential for soil erosion due to water, it is important that the irrigation system design has an application rate that will not overwhelm the intake rate of the soil. Excess runoff and erosion will be an important management consideration for this project. The irrigation system should be designed to be compatible with the predominant soils types in the project area. Irrigation also increases plant residues returned to the soil. The irrigation of the garden should not cause any impact to the soil quality or soil stability. Saline is not considered to be a problem in the project area, and the project is not expected to cause any saline seep.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: There will be some ground disturbance with the construction of the pipeline from the pump site to the place of use, as well as the construction of the domestic and stock buildings. According to the Natural Resource Information System website, the area where the pipeline crosses and where the buildings will be built is agricultural land, either in fallow crop or grazing. An impact could occur, particularly with the establishment or spread of noxious weeds along the pipeline route. It is the responsibility of the property owners to control noxious weeds on their property and it is expected the land owner will likely revegetate the disturbed areas.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: There should be no deterioration of air quality or adverse effects on vegetation due to this proposed project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: According to the Montana State Historic Preservation Office (SHPO), there are no previously recorded historic sites within the project area. If any structures over 50 years of age are to be altered, it is SHPO's recommendation that they be recorded and a determination of eligibility be made. If no existing structures are to be altered, SHPO feels there is a low likelihood cultural properties will be impacted and therefore, a cultural resource inventory is unwarranted at this time. Since the project is located on private property, any inventory conducted would be at the landowner's discretion.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources are known.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: This project will not impact access to or the quality of recreational and wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: This project should have no impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
Yes___ No_X_. If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: There are no known additional government regulatory impacts on private property rights associated with this application.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity ? No significant impact.

(*b*) *Local and state tax base and tax revenues ?* No significant impact.

(c) Existing land uses ? No significant impact.

(*d*) *Quantity and distribution of employment ?* No significant impact.

(e) Distribution and density of population and housing ? No significant impact.

(f) Demands for government services ? Other than applicable regulatory requirements and permits, there should be no significant impact due to this project.

(g) Industrial and commercial activity ? No significant impact.

(h) Utilities ? No significant impact.

(i) Transportation ? No significant impact.

(j) Safety ? No significant impact.

(k) Other appropriate social and economic circumstances ? No significant impact.

2. Secondary and cumulative impacts on the physical environment and human population: No secondary or cumulative impacts have been identified.

3. Describe any mitigation/stipulation measures: None

4. **Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:** No significant impacts have been identified. Under the no action alternative, this permit would not be approved and the land use likely would remain as is. The applicant would not benefit from a water source for their domestic and stock water needs. At this time, a reasonable alternative has not been determined.

PART III. Conclusion

Based on the significance criteria evaluated in this EA, is an EIS required? No

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified, therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Dixie Brough
Title: Water Resources Specialist
Date: December 14, 2006